



1651  
#3  
DmT  
1-21-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Wong et al.	)	
	)	Attorney Docket:
Serial No.: 09/992,680	)	SCRF 267.3 DIV. 1
	)	
Filed: November 19, 2001	)	Group Art Unit 1651
	)	
For: PRODUCTION OF FUCOSYLATED	)	
CARBOHYDRATES BY ENZYMATIC	)	
FUCOSYLATION SYNTHESIS OF SUGAR	)	
NUCLEOTIDES; AND IN SITU	)	
REGENERATION OF GDP-FUCOSE	)	
	)	
Examiner:	)	

INFORMATION DISCLOSURE STATEMENT

**RECEIVED**

DEC 04 2002

BOX IDS  
Hon. Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

TECH CENTER 1600/2900

Sir:

Pursuant to 37 C.F.R. 1.97, a list of documents is disclosed on the attached Form PTO-1449.

The Documents A1-A39, listed on the attached Form PTO-1449, were cited and supplied to the Patent and Trademark Office in the divisional application Serial No. 07/961,076 filed October 14, 1992, now U.S. Patent No. 6,319,695, which is a continuation-in-part of Serial No. 07/910,612, filed July 8, 1992, now abandoned, a continuation-in-part of Serial No. 07/901,260, filed June 19, 1992, now abandoned that was a continuation-in-part of Serial No. 07/777,662, filed October 15, 1991, now abandoned, the benefits of whose filing dates are claimed herein. Pursuant to 37 C.F.R. 1.98(d), it is understood that only a list of art is required inasmuch as the art has been provided and discussed previously.

Listed Documents A1-A3 and A20-A34 on the attached Form PTO-1449 are patents or published papers cited and discussed in the application.

Document A19 WO 93/08205 (copy enclosed) is the published PCT application corresponding to the present application, and its International Search Report (copy enclosed) cites Documents A4-A9.

Documents A4-A11 were cited in the application of issued U.S. Patent No. 6,319,695 in an Information Disclosure Statement filed on October 18, 1994 (PTO-1449 enclosed). Similarly, Documents A12 and A13 and Documents A16 and A17 were also cited during the prosecution of issued U.S. Patent No. 6,319,695, in Information Disclosure Statements filed February 8, 1996 and on March 22, 1993 respectively (PTO-1449 enclosed).

Moreover, Documents A14, A15 and A18 were cited by the Examiner during the prosecution of the now issued U.S. Patent No. 6,319,695.

Document A34 is a paper published by the inventors and a co-worker that relates to cyclic syntheses that can be used in the present invention and are disclosed and claimed in related application Serial No. 07/670,701, filed March 18, 1991, now U.S. Patent No. 5,278,299 issued January 11, 1994.

Also noted in Form PTO-1449 as Documents A35 and A36 are two papers by one or more of the inventors herein that relate to disclosures of the application and whose disclosures are largely present in the present application. Document A35 relates to the disclosures concerning Schemes 3, 4 and 4a, whereas Document A36 relates to the disclosures concerning Schemes 21, 22 and 23.

Document A37 is a recently published article by a third party with no ties to the present inventors. The article discusses and lauds the work of the inventors and their co-workers related to this application and its cyclic, regenerating syntheses.

Document A39 is a copy of a portion of a review published by David et al., Adv. Carbohydr. Chem. Biochem., 49:175-237 (1991); pages 175 and 214-219. The underlined portion of page 215 asserts that that which the inventors of Serial No. 07/670,701, now U.S. Patent No. 5,278,299, have shown and claimed is not possible.

No inferences should be drawn that the attached list represent a comprehensive investigation, or that any material disclosed is equivalent to the subject invention. In addition, none of the documents that have publication dates prior to the priority date of the above application anticipate the invention in this application.

The cited documents disclose numerous specific features. There has been no attempt to list each and every feature disclosed by each document. The Examiner is requested to review the documents and determine the extent of the materiality of the document disclosures with respect to the present invention.

The discussion of any art and the citation of any document herein is not to be construed as an admission that the art or document disclosure is necessarily within the invention field of endeavor, that the art or document disclosure is necessarily prior in time to a particular date which may be relevant to the instant patent application, and/or that the art or document disclosure is otherwise necessarily prior art as defined by the patent law with respect to the instant invention and application.

Also, there is reserved the right to later set forth how the instant invention is distinguished over the disclosure of any document or other art, including the disclosures of the art and documents recited herein, that may be cited by the Examiner in rejecting a claim in the instant patent application.

The recitation herein of the art and documents is not to be construed as an assertion that more pertinent art could not possibly be in existence.



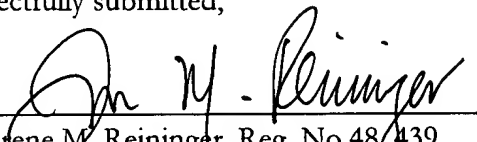
Serial No. 09/992,680

-4-

If any fees or petition are believed to be necessary, please charge our Deposit Account No. 23-0920, and deem this paper to be the required petition.

Respectfully submitted,

By

  
Irene M. Reininger, Reg. No. 48,439

Enclosures:

PTO-1449 listing documents A1-A39

copies of previously filed IDS's:

PTO-1449 filed March 22, 1993

PTO-1449 filed October 18, 1994

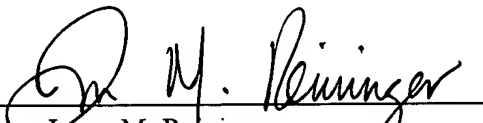
PTO-1449 filed February 8, 1996

A19 - WO 93/08205 enclosed including International Search Report

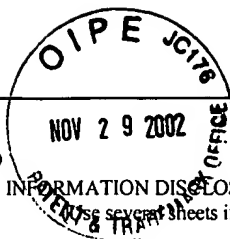
Welsh & Katz, Ltd.  
120 South Riverside Plaza  
22nd Floor  
Chicago, Illinois 60606  
312/655-1500

CERTIFICATE OF MAILING

I hereby certify that this Information Disclosure Statement, together with the stated enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Hon. Commissioner of Patents and Trademarks, Washington, D.C. 20231 on November 25, 2002.

  
Irene M. Reininger

(Rev. 5/92)  
Comparable to  
Form PTO-1449



U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.  
SCRF 267.3 DIV. 1  
(3195-84503)

Serial No.  
09,992,680

INFORMATION DISCLOSURE CITATION  
(Indicate relevant sheets if necessary)

Applicants  
Wong, et al.

Filing Date  
Nov. 19, 2001

Group  
1651

## U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	A1	4,235,871	11/1980	Papahadjopoulos, et al.	424	19	
	A2	4,501,728	2/1985	Geho, et al.	424	38	
	A3	4,837,028	6/89	Allen	424	450	
	A4	5,109,126	4/1992	Agrawal, et al.	536	29	
	A5	4,686,193	8/1987	Kolar	436	536	
	A6	4,563,445	1/1986	Feizi, et al.	514	25	
	A7	5,079,353	1/1992	Ratcliffe, et al.	536	53	
	A8	4,137,401	1/1979	Lemieux, et al.	536	116	
	A9	4,770,994	9/1988	Rittenhouse	435	7	
	A10	5,278,299	1/1994	Wong, et al.	536	53	
	A11	5,344,870	9/1994	Ratcliffe, et al.	525	54.2	
	A12	5,264,352	11/1993	Thiem, et al.			
	A13	5,246,840	9/1993	Nilsson			
	A14	4,925,796	5/1990	Bergh, et al.	435	97	
	A15	5,180,674	1/1993	Roth	435		

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	A16	DE 3656915 A1	2/1988	Germany				
	A17	WO 91/16449	10/1991	PCT				
	A18	WO 87/05330	9/1987	PCT				
✓	A19	WO 93/08205	4/1993	PCT				

## OTHER DOCUMENTS

	A20	Foster, <i>J. Biol. Chem.</i> , 266:3526-3531 (1991)
	A21	Muramatsu, <i>Eur. J. Biochem.</i> , 157:71-75 (1986)
	A22	Prieels, et al., <i>J. Biol. Chem.</i> , 256:10456-10463 (1981)
	A23	Campbell, et al., <i>J. Biol. Chem.</i> , 259:11208-11214 (1984)
	A24	Larsen, et al., <i>Proc. Natl. Acad. Sci., U.S.A.</i> , 87:6674-6678 (1990)
	A25	Kukowska-Latallo, et al., <i>Genes and Devel.</i> , 4:1288-1303 (1990)
	A26	Ichikawa, et al., <i>J. Amer. Chem. Soc.</i> , 113:4698-4700 (1991)
	A27	Dumas, et al., <i>Bioorg. &amp; Med. Chem. Lett.</i> , 1:425 (1991)

Examiner

Date Considered

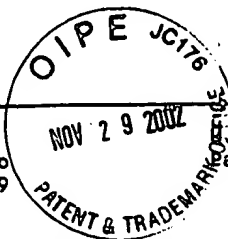
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PTO-14 Filed March 22, 1993 in Application Serial No.  
07/961,706 - now U.S. Patent No. 6,319,695

Sheet 1 of 2

(Rev. 5/92)  
Comparable to  
Form PTO-1449

INFORMATION DISCLOSURE CITATION  
(Use several sheets if necessary)

U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.  
TSRI 267.3

Serial No.  
07/961,076

Applicant  
Wong et al.

Filing Date  
October 14, 1992

Group  
1803

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA	4,235,871	11/80	Papahadjopoulos et al.	424	19	
	AB	4,501,728	2/85	Geho et al.	424	38	
	AC	4,837,028	6/89	Allen	424	450	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	CA	DE 3656915 A1	2/88	Germany				
	CB	WO 91/16449	10/91	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AD	Foster, <u>J. Biol. Chem.</u> , 266:3526-3531 (1991)
	AE	Muramatsu, <u>Eur. J. Biochem.</u> , 157:71-75 (1986)
	AF	Prieels et al., <u>J. Biol. Chem.</u> , 256:10456-10463 (1981)

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(Rev. 5/92)

U.S. Department of Commerce  
Patent and Trademark Office

Atty. Pocket No.  
TSRI 267.3

Serial No.  
07/961,076

INFORMATION DISCLOSURE CITATION  
(Use several sheets if necessary)

Applicant  
Wong et al.

Filing Date  
October 14, 1992

Group  
1803

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AG	Campbell et al., <u>J. Biol. Chem.</u> , <u>259</u> :11208-11214 (1984)
AH	Larsen et al., <u>Proc. Natl. Acad. Sci., U.S.A.</u> , <u>87</u> :6674-6678 (1990)
AI	Kukowska-Latallo et al., <u>Genes and Devel.</u> , <u>4</u> :1288-1303 (1990)
AJ	Ichikawa et al., <u>J. Amer. Chem. Soc.</u> , <u>113</u> :4698-4700 (1991)
AK	Dumas et al., <u>Bioorg. &amp; Med. Chem. Lett.</u> , <u>1</u> :425 (1991)
AL	Gokhale, <u>Can. J. Chem.</u> , <u>68</u> :1063 (1990)
AM	Phillips et al., <u>Science</u> , <u>250</u> :1130-1132 (1990)
AN	Palcic et al., <u>Glycobiology</u> , <u>1</u> :205 (1991)
AO	Wong et al., <u>J. Org. Chem.</u> , <u>47</u> :5416 (1982)
AP	Schachter et al., <u>Method Enzymol.</u> , <u>28</u> :285 (1972)
AQ	Dumas et al., <u>Bioorg. &amp; Med. Chem. Lett.</u> , <u>2</u> :33 (1992)
AR	Ichikawa et al., <u>J. Am. Chem. Soc.</u> , <u>113</u> :6300-6302 (1991)
BA	Liu et al., <u>J. Org. Chem.</u> , <u>57</u> :3748-3750 (1992)
BB	Ichikawa et al., <u>J. Org. Chem.</u> , <u>57</u> :2943-2946 (1992)
BC	Borman, <u>C&amp;EN</u> , pp. 25-28 (Dec. 7, 1992)
CC	Holmes et al., <u>J. Biol. Chem.</u> , <u>261</u> :3737-3743 (1986)
CD	David et al., <u>Adv. in Carbohydr. Chem. and Biochem.</u> , <u>49</u> :215-219 (1991)

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PTO-1449 filed October 18, 1994 in Application Serial  
No. 07/961,706 - now U.S. Patent No. 6,319,695

Sheet 1 of 1

<b>U.S. Department of Commerce</b> Patent and Trademark Office  <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	<b>Atty. Docket No.</b> TSRI 267.3 3195/59247	<b>Serial No.</b> 07/961,076
	<b>Applicant</b> Wong et al.	
	<b>Filing Date</b> October 14, 1992	<b>Group</b> 1815

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	DA	5,109,126	4/92	Agrawal et al.	536	29	
	DB	4,686,193	8/87	Kolar	436	536	
	DC	4,563,445	1/86	Feizi et al.	514	25	
	DD	5,079,353	1/92	Ratcliffe et al.	536	53	
	DE	4,137,401	1/79	Lemieux et al.	536	116	
	DF	4,770,994	9/88	Rittenhouse	435	7	
	EA	5,278,299	1/94	Wong et al.	536	53	
	EB	5,344,870	9/94	Ratcliffe et al.	525	54.2	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<b>Examiner</b>	<b>Date Considered</b>	

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**Serial No.**  
**07/961,076**

**Group  
1808**

## U.S. PATENT DOCUMENTS

## FOREIGN PATENT DOCUMENTS

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